

We work to reduce nuclear proliferation and the threats from weapons of mass destruction

Mission

The Nonproliferation, Arms Control, and International Security (NAI) Directorate provides technology, analysis, and expertise in support of national and international efforts to reduce the threats from nuclear weapons and other weapons of mass destruction.

Reducing Nuclear Dangers

The NAI Directorate draws on Livermore's expertise in nuclear weapons, weapon technology, and other multidisciplinary strengths in pursuit of its national- and global-security mission. Activities include:

- Analysis of foreign weapon activities.
- Development of new technologies for detecting and monitoring nuclear weapons programs and for monitoring and safely disposing of nuclear materials.
- Technical support to the U.S. government for the development of arms-control policy and for negotiation and monitoring of arms control and test ban treaties.
- Defense conversion efforts in the republics of the former Soviet Union.
- Development of technologies for responding to threats of nuclear terrorism and other nuclear emergencies.
- Assistance to the U.S. government in assessing the effects of possible counterproliferation strategies through computer-based conflict simulation and comprehensive systems analysis.

Recent Accomplishments

- Development and testing, in collaboration with Russian scientists, of nuclear-material monitoring equipment as part of U.S.–Russian agreements on the dismantlement and storage of nuclear weapons.
- Assessments of foreign nuclear weapon capabilities and programs to support U.S. policy in regions with nuclear weapon activities.
- Delivery of monitoring equipment to Iraq for the United Nations Special Commission.
- Provision of equipment for weapon dismantlement and nuclear accident response to republics of the former Soviet Union.
- Provision of negotiation support and execution of critical experiments to guide comprehensive test ban discussions at the Conference on Disarmament.
- Development of portable chemistry laboratories for monitoring the Chemical Weapons Convention.
- Demonstration of a new and efficient method to convert plutonium from nuclear weapons directly to usable reactor fuel.
- Development of advanced computer simulation tools within a nationally accessible facility for training and educating military and government organizations in counterproliferation and crisis situations.

National Assets

We contribute to U.S. national security by providing expertise, technology, and support through a number of unique centers and capabilities:

- Forensic Science Center.
- Communicated Threat Evaluation Center.
- Conflict Simulation Laboratory.
- Proliferation Assessment Program.
- The Department of Energy's Nuclear Emergency Search Team.

Benefits to the Nation

Livermore expertise in nuclear weapon science and technology provides the foundation for our nonproliferation and counterproliferation activities, and these activities help maintain our overall nuclear weapons expertise. We also draw on laboratory capabilities in physics, engineering, chemistry, metallurgy, computing and computer systems, political science, and intelligence analysis. Applying this multidisciplinary, multiprogram expertise, the NAI Directorate develops, for instance, state-of-the-art sensors for detecting clandestine weapons programs and provides accurate and reliable assessments for U.S. policy-makers and the intelligence community. Coordinated technology development, defense conversion, and economic development programs with scientific institutes and industries of the former Soviet Union are also contributing to the reduction of nuclear dangers worldwide.

Contact

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